Textbooks covering the renormalization group


The renormalization group


Onset of chaos


Crackling noise, depinning, and avalanches


spectrum and dynamic exponents in avalanche models. Physical Review B,


Surfaces and growing interfaces


coulomb gas, and the interfacial roughening transition. Physical Review

Flocking and active matter


Collective motion of moshers at heavy metal concerts. Physical Review


89:025002, Apr 2017.

Nonperturbative functional (‘Exact’) RG (Two
applications)

[1] Ivan Balog, Gilles Tarjus, and Matthieu Tissier. Criticality of the random
field Ising model in and out of equilibrium: A nonperturbative functional

[2] Léonie Canet, Bertrand Delamotte, and Nicolás Wschebor. Fully developed
isotropic turbulence: Nonperturbative renormalization group formalism and
2D Conformal field theory


SLE


Conformal bootstrap


Disordered systems


Networks


Glasses


Quantum phase transitions


Fracture


**Cell membranes**


**Plastic flow in metals**


Fermi liquid theory and the RG


Random matrix theory


Abrupt transitions


Infinite and strong disorder RG


Crossover scaling


Droplet breakup


Logical satisfiability and criticality in algorithms for solving NP-complete problems


Fun


